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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Investigation into Implementation of Assembly Bill 970 Regarding the Identification of Electric Transmission and Distribution Constraints, Actions to Resolve Those Constraints, and Related Matters Affecting the Reliability of Electric Supply.	Investigation 00-11-001 (Filed November 2, 2000)

ADMINISTRATIVE LAW JUDGE'S RULING PROPOSING INTERIM METHODOLOGY FOR DEVELOPMENT AND CONSIDERATION OF TRANSMISSION COSTS IN RENEWABLE PORTFOLIO STANDARD PROCUREMENT

I. Background and Summary

A prehearing conference (PHC) was held in Phase 8 of this proceeding on March 5, 2004 to discuss the development and consideration of indirect transmission costs in assessing Renewable Portfolio Standard (RPS) bids, as provided in Decision (D.) 03-06-071 in Rulemaking (R.) 01-10-024. In that decision, the Commission determined that a Pacific Gas and Electric Company (PG&E) proposal was a reasonable starting point for development of transmission costs for RPS purposes, with refinement of the approach to occur in this proceeding.

In preparation for the PHC, PG&E filed and served on all parties its proposal for the development and consideration of transmission costs, as submitted in R.01-10-024 and referenced in D.03-06-071. PG&E, Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E),

the Center for Energy Efficiency and Renewable Technologies, and the California Wind Energy Association (CalWEA) filed PHC statements in advance of the PHC. The Administrative Law Judge (ALJ) allowed Vulcan Power Company (Vulcan) to late-file its PHC statement.

During the PHC, there was general agreement that the initial focus in this phase should be development of an interim methodology to estimate and consider transmission costs for use during the initial RPS procurement. We discussed which issues should be addressed in the interim methodology and which should be deferred until a later time.

In a March 19, 2004 ruling, I directed that PG&E, SCE, and SDG&E undertake supplemental solicitations to elicit any further information needed from potential renewable energy bidders and prepare additional conceptual transmission studies, if needed, to allow the development of transmission cost estimates for the initial RPS procurement solicitation.

Consistent with discussion at the PHC, in today's ruling I propose an interim methodology for development and consideration of transmission costs during the initial RPS procurement. After receipt of comments and reply comments on the interim methodology, I plan to prepare a draft decision, which will be served on parties and subject to review and comment prior to issuance of a Commission decision.

II. Interim Methodology for Estimates and Consideration of Transmission Costs

In this ruling, I discuss many of the issues raised during the PHC. Attachment A contains a comprehensive proposal for consideration of transmission costs in the initial RPS procurement, including the development of Transmission Ranking Costs Reports. The structure of Attachment A is based on

PG&E's proposal submitted in R.01-10-024 and filed in this proceeding. Parties may file comments on my proposal, with service on all parties, no later than April 9, 2004, and may file reply comments, with service on all parties, no later than April 16, 2004. Any party taking issue with or proposing clarifications to any portion of this ruling or Attachment A should include alternate proposed language in addition to a detailed rationale for the party's position.

A. Use of Existing Studies

For interim purposes, the utilities should prepare their transmission cost estimates based on the most recent conceptual transmission studies, including the studies prepared for Senate Bill 1038 compliance and submitted on August 31, 2003 in this proceeding, conceptual transmission studies prepared in response to my March 19, 2004 ruling, and other comparable studies. They should also rely on any System Impact Studies and Facilities Studies they may have for projects in the California Independent System Operator (ISO) interconnection queue. Cost estimates in existing studies may be adjusted if needed to reflect that construction may occur in a different year than assumed in the study.

B. Demarcation between Gen-ties and Network Transmission Facilities

In its Transmission Ranking Costs Report, each utility should identify an assumed demarcation between gen-ties and network transmission facility upgrades. For interim RPS procurement purposes, the utilities should treat all new transmission facilities constructed to access renewable power that carry power from more than one project as network transmission facilities. The utilities should use this demarcation regardless of whether the new facilities would be constructed as a radial addition to, or in a loop configuration with, the existing network. The cost of network facilities determined in this manner

should be reflected in the utility's transmission cost estimates rather than in projects' RPS bids.

The demarcation between gen-ties and network transmission facilities is an issue of considerable controversy. The proposed interim approach does not depend upon or prejudge the ultimate classification of, or source of funding for, transmission facilities needed for RPS projects. Rather, it is a workable approach for the development of total transmission cost estimates and the ranking of bids for the first RPS procurement.

In its Transmission Ranking Costs Report, each utility should specify the expected location of each new substation, so that project developers may assess their expected gen-tie costs in preparation of their RPS bids. To the extent consistent with existing conceptual studies, the utilities should identify substation locations based on knowledge regarding both currently proposed and potential future renewable projects.

C. Network Benefits

CalWEA proposes that the Commission make a blanket determination that network benefits of transmission upgrades exceed their costs and, as a result, that no transmission costs be included in the assessment of RPS bids. I do not accept this proposal because it is counter to both Public Utilities Code § 399.14(a)(2)(B)[1] and D.03-06-071.

CalWEA proposes alternatively that hearings be held at this time to identify network benefits as offsets to transmission upgrade costs attributed to renewable projects. Vulcan and Oak Creek Energy Systems, Inc. (Oak Creek)

[1] All statutory references are to the Public Utilities Code.

join CalWEA in supporting the development of transmission cost estimates net of grid benefits. However, this approach is not desirable as part of the interim methodology. As CalWEA acknowledges, some network benefits may not be easily or accurately quantifiable and some may not be near term. The goal of D.03-06-071 was that transmission cost estimates reflect a workable approximation of transmission upgrade costs. Holding hearings to address network benefits may not improve the accuracy of transmission cost estimates and would delay the initial procurement.

The determination that network benefits should not be considered in the interim methodology does not preclude consideration of network benefits in assessing transmission costs for use in subsequent procurements. Contrary to PG&E's statement during the PHC, the Commission's determination in D.03-07-033 that the evaluation of network benefits for purposes of § 399.25 should be undertaken during a certificate of public convenience and necessity proceeding does not preclude consideration of network benefits in other forums for other purposes, including the RPS procurement process.

I note in addition that, as provided by D.03-06-071, bidders may describe expected network benefits in their bids, along with their projects' expected effects on local reliability, low income or minority communities, environmental stewardship, and resource diversity, for the soliciting utility's consideration in evaluating the bid. Other than mandating consistency and transparency, the interim methodology does not specify the manner in which a utility should consider such factors in assessing projects' bids.

D. Curtailment as an Alternative to Reduce Transmission Cost Estimates

The utilities should develop transmission cost estimates that allow delivery of the full output of the renewable projects, with no provision for curtailment as a means to reduce transmission costs. As noted by SDG&E in its PHC statement, some System Impact Studies and Facilities Studies may not address deliverability needs. Unless a contract has been signed that provides for curtailment in lieu of full deliverability, the utility's transmission cost estimates should include deliverability costs, if warranted, in addition to System Impact Study and Facilities Study results.

D.03-06-071 recognizes that the utilities may favor curtailability and dispatchability as attributes of bids. Projects may submit bids that provide for less-than-full deliverability of project output, e.g., curtailments when transmission is constrained. The utility would then assess, on a case-by-case basis, whether and the extent to which the published transmission cost estimates should be modified in assessing such projects' bids. The interim methodology does not address how a utility should assess transmission costs for such projects, how it should value such bids, or whether power curtailed in this fashion should be included in determining compliance with the utility's Annual Procurement Target under the RPS. Like network benefits, utility consideration of curtailability proposals should be consistent and transparent to the Commission when it reviews proposed RPS contracts.

E. Line Ratings

CalWEA suggests that dynamic line ratings be used in the transmission cost estimates. I disagree. Typical ambient conditions are taken into account in establishing line ratings for planning purposes. Dynamic line ratings, by their

nature, reflect operating conditions that are not pervasive enough to be considered in reliability planning studies. As a result, it is not appropriate to use dynamic line ratings in determining needed transmission upgrades.

F. Generation or Consumption of VARs

CalWEA suggests that wind generators report the extent to which they would be able to produce Volt Amperes Reactive (VARs), for use in development of transmission cost estimates. However, except for projects in the ISO interconnection queue, transmission cost estimates should be developed without reference to specific projects. Developers may submit VAR characteristics of their proposed projects, to the extent known, as part of their bids, and the utilities may take this information into account in assessing the bids.

G. Phasing of Transmission Additions

Transmission cost estimates should reflect phased upgrades, with the most cost-effective upgrades assumed to be built first. While PG&E's transmission cost proposal anticipated three levels of transmission cost estimates, transmission cost estimates should be developed separately for each upgrade, as detailed in Attachment A.

H. Transmission Costs for Projects Whose Output May Be Sold to Another Entity

Each utility that is notified in response to its supplemental solicitation that a project in its service territory is contemplating a bid to sell power to another entity should include in its Transmission Ranking Costs Report an estimate of transmission upgrade costs needed to deliver the power to the adjoining transmission system specified by the project developer.

A developer bidding to sell its power to an entity other than the interconnecting utility should be required to include with its bid an estimate of

transmission upgrade costs needed to deliver the power to the point of interconnection with the purchasing utility's transmission network. If available, the developer should obtain the transmission cost estimates from the relevant company's Transmission Ranking Costs Report. It is the bidder's responsibility to obtain transmission cost estimates from any other entity whose transmission system its power may traverse. For transmission systems not controlled by the ISO, expected wheeling charges are an acceptable estimate of network upgrade costs.

Network transmission upgrade costs for delivery of power to the purchasing utility's network must be listed separately in the bid. They will not be used in the first ranking of bids, which compares the bid price to the appropriate market price referent. This approach is appropriate because the bid price forms the basis for subsidies through Supplemental Energy Payments, which should not include transmission or integration costs.

I. Consideration of Transmission Costs in Rank Ordering of Bids

Consideration of transmission costs in the rank ordering of RPS bids will entail an iterative process, as detailed in Attachment A. Within a geographic area, or "cluster," the utility should assign network upgrade costs to specific renewable bidders according to their place in the ISO interconnection queue or their ranking without consideration of transmission costs. The utility should then undertake the least-cost ranking of bids, subject to best-fit considerations, to minimize total costs of power from RPS projects, including the cost of needed transmission upgrades.

For at least the initial RPS procurement, the utilities should consider the entire cost of a transmission upgrade in ranking the projects that would use the upgrade. This approach is consistent with D.03-06-071, which provided (mimeo.

at 36-37) that, in the near term, the full cost of network upgrades will be considered in application of the least-cost criterion.

During the PHC, we discussed an approach in which costs of large transmission upgrades would be assessed on a pro rata basis to renewable projects that are not large enough to fully utilize the upgrade, if a threshold amount of projects is under consideration in the procurement ranking process. The proposed decision issued on March 1, 2004 in the Tehachapi phase of this proceeding recommends that a study group examine the use of similar triggers for phased transmission upgrades in that region. Until this matter is examined further, the guidance in D.03-06-071 that total transmission costs be considered in the rank ordering of bids continues to be appropriate.

As also discussed during the PHC, the appropriate form of the transmission cost estimate used in assessing a bid, i.e., total cost, per-megawatt cost, or per-kilowatt-hour cost, may depend on the form of the bid. Each utility should structure and apply transmission cost estimates in a manner that is consistent and transparent to the Commission when it reviews proposed RPS contracts.

J. Confidentiality

Parties have expressed concern that sensitive information regarding renewable projects not be divulged. In their comments on this ruling, parties may address whether confidentiality requirements should be imposed on any portion of the interim methodology. Any party supporting confidentiality restrictions should propose specific language for inclusion in the interim methodology.

K. Dispute Resolution

D.03-06-071 provides that renewable developers will have the opportunity in this proceeding to dispute the results of transmission cost assessments.

CalWEA suggests an expedited dispute resolution mechanism, or the dissemination of transmission cost information before Transmission Ranking Costs Reports are released as a means to speed evaluation of the utilities' transmission cost analyses. SDG&E suggests that a consultant be retained to resolve disputes.

I do not see a need to create a new dispute resolution mechanism at this time. Instead, parties should be allowed to file comments on the utilities' Transmission Ranking Costs Reports. I propose that initial comments on the Transmission Ranking Costs Reports be due 14 days after the reports are filed, with reply comments due 7 days thereafter. The Commission can then assess the adequacy of the reports on the basis of the filed comments and determine whether additional steps are warranted before the utilities' results are used in ranking bids for the initial RPS procurement.

In addition, D.03-06-071 provides that, following Procurement Review Group analysis, each utility will file an advice letter for Commission approval of its proposed contracts. Procurement Review Group members and other parties may raise transmission-related or other concerns in protests to those advice letters if warranted.

III. Longer-Term Issues

The interim methodology does not preclude future consideration of refinements in the method for determination of the most cost-effective transmission upgrades, or of other issues such as network benefits, transmission line losses, and the possible displacement of non-renewable generation and

related transmission needs. During the PHC, we discussed study groups for the assessment of transmission needs for individual renewable resource areas. That topic is outside the scope of this ruling.

Therefore, **IT IS RULED** that:

1. Parties may file initial comments on the proposed interim methodology for development and consideration of transmission costs in Renewable Portfolio Standard procurement, with service on all parties, no later than April 9, 2004.

2. Parties may file reply comments regarding the interim methodology, with service on all parties, no later than April 16, 2004.

3. Any party taking issue with or proposing clarifications to any portion of this ruling or Attachment A shall include alternate proposed language in addition to a detailed rationale for the party's position.

4. Parties shall file initial and reply comments on the proposed interim methodology in paper form. Parties shall serve initial comments and may serve reply comments on the service list in electronic form, pursuant to Rule 2.3(b) in the Commission Rules of Practice and Procedure. Parties shall serve paper format copies, in addition to electronic copies, on the Assigned Commissioner, the assigned Administrative Law Judge, anyone on the Appearances and State Service portions of the service list who does not have a valid e-mail address, and any other party requesting paper format copy. For initial or reply comments served electronically, the party shall e-mail courtesy copies to the entire service list, including those appearing on the list as "Information Only."

Dated April 2, 2004, at San Francisco, California.

/s/ CHARLOTTE F. TERKEURST
Charlotte F. TerKeurst

Administrative Law Judge

Attachment A

Proposed Interim Methodology for Development and Consideration of Transmission Costs in Renewable Portfolio Standard Procurement

Purpose and Applicability

Pursuant to Public Utilities Code § 399.14(a)(2)(B), the rank ordering and selection of least-cost and best-fit renewable resources for the Renewable Portfolio Standard (RPS) program shall consider estimates of indirect costs associated with needed transmission investments.

Each electrical corporation subject to the Commission's jurisdiction and owning electrical transmission facilities in the State of California (subject utility) shall use this Interim Methodology for the development and consideration of transmission costs in ranking bids in response to its initial RPS procurement solicitation. This methodology applies to the second ranking described in Decision (D.) 03-06-071 (mimeo. at 33–35) issued in Rulemaking 01-10-024.

A. Direct Assignment Facilities

1. As provided by D.03-06-071, any eligible renewable resource developer bidding in response to an RPS procurement solicitation shall include its expected Direct Assignment Facilities in its bid. The bidder shall internalize in its bid price the estimated cost of all facilities needed to physically and electrically interconnect the renewable energy generation facility to and at the first point of interconnection with the transmission grid. These facilities are referred to as Direct Assignment Facilities or gen-ties.

2. Direct Assignment Facilities include the transformer bank used to step-up the generation output to transmission voltage, the outlet line between this step-up transformer bank and the transmission system, and any protection and communication facilities needed for interconnection and safe operation of the generator.

3. Direct Assignment Facilities costs need not be separately identified in a renewable resource developer's bid.

B. Network Upgrades

1. Each subject utility shall estimate the cost of its transmission network upgrades needed to accommodate the interconnection or expansion of a bidder's renewable energy generation facility and transmission of the project's output in accordance with these procedures.

2. Network upgrades include all facilities necessary to reinforce the transmission system after the point where the renewable bidder's electricity first interconnects with and enters the subject utility's transmission grid, and to transmit or deliver the full amount of power from the project. Network upgrades include transmission lines, transformer banks, special protection systems, substation breakers, capacitors, and other equipment needed to transfer power to the consumer.

3. For purposes of identifying transmission costs and rank ordering RPS bids in the initial RPS procurement, each subject utility shall treat all new transmission facilities constructed to access renewable power that carry power from more than one generation project as network transmission facilities, regardless of whether the new facilities would be constructed as a radial addition to, or in a loop configuration with, the existing network. This treatment of new transmission facilities for RPS ranking purposes is not determinative of the classification of such facilities for other purposes.

4. Each subject utility shall include in its Transmission Ranking Costs Report the cost of all identified network upgrades consistent with this Interim Methodology. Such costs shall not be included in a developer's bid.

C. Transmission Ranking Costs Report

1. Each subject utility shall prepare a Transmission Ranking Costs Report in which it provides estimates of the capital costs of upgrades to its transmission facilities that would be needed to accommodate interconnection and delivery of power from potential renewable energy bidders in the initial RPS procurement solicitation.

2. Each subject utility's Transmission Ranking Costs Report shall reflect data regarding potential renewable energy bidders obtained through the supplemental solicitations required by the March 19, 2004 Administrative Law Judge's (ALJ) ruling in Investigation (I.) 00-11-040 in addition to previously obtained information regarding potential renewable energy bidders.

3. Each subject utility shall include in its Transmission Ranking Costs Report its transmission cost estimates for the following types of potential renewable energy bidders:

a. Renewable energy resources for which the first point of interconnection with the transmission grid is or will be at a facility owned by the subject utility and whose output is expected to be sold to the subject utility,

b. Renewable energy resources for which the first point of interconnection with the transmission grid is or will be at a facility owned by the subject utility and whose output is expected to be sold to a different entity, and

c. Renewable energy resources located elsewhere for which the project developer has indicated that it anticipates submitting an RPS bid to the subject utility.

4. Each subject utility shall prepare its Transmission Ranking Costs Report in accordance with the following guidelines:

a. Based upon review of a geographical map, the subject utility shall divide the identified potential renewable energy bidders into clusters based on the substation(s) and bus(es) to which the identified renewable resources most likely would interconnect. If the renewable resource's first point of interconnection is at a substation or bus not owned by the subject utility, the subject utility shall treat that renewable resource as part or all of a cluster beginning at the first point where such added generation would first enter the subject utility-owned transmission system.

b. To identify the network upgrades that may be needed for each cluster, the subject utility shall use the conceptual transmission studies that were submitted for compliance with Senate Bill 1038, conceptual studies prepared pursuant to the March 19, 2004 ALJ ruling in I.00-11-001, and other comparable studies. The utility shall also use any System Impact Studies and Facilities Studies it has for projects in the California Independent System Operator (ISO) interconnection queue. Costs may be adjusted if needed to reflect that construction may occur in a different year than assumed in an existing study.

c. Each subject utility shall develop transmission cost estimates to provide for delivery of the full output of the renewable projects, except for projects in the ISO interconnection queue with signed contracts providing for curtailment in lieu of full deliverability of their output.

d. Based on the conceptual transmission studies and any available System Impact Studies and Facilities Studies, each subject utility shall identify the transmission network upgrades that are expected to be needed to accommodate each cluster of renewable resources. For each cluster, the subject utility shall identify levels of transmission capacity according to the following order:

(i) Level 1—the transmission capacity expected to be available, excluding any upgrades needed for projects in the ISO interconnection queue;

(ii) Level 2—the transmission capacity expected to become available due to upgrades for the first project in the ISO interconnection queue for which transmission upgrades are needed. The transmission capacity needed by the project and any transmission capacity that would be added in excess of that amount shall be identified separately. An additional level shall be created for each project in the ISO interconnection queue for which needed transmission upgrades are identified.

(iii) Level 3—the transmission capacity expected to become available with the lowest cost (or most cost-effective) network upgrade in addition to upgrades identified for projects in the ISO interconnection queue. An additional level shall be created for each next most cost-effective network upgrade, with the number of levels depending on the number of network upgrades needed to accommodate the total amount of generation in the identified cluster.

e. Each subject utility shall develop and include in its Transmission Ranking Costs Report non-binding cost estimates for each level of transmission network upgrades (other than Level 1) and for common facilities needed if renewable generation were added at several clusters simultaneously.

f. If a developer of a renewable energy resource whose first point of interconnection would be with the subject utility's transmission grid has informed the subject utility that it plans to submit a bid to sell the resource's output to another entity, the subject utility shall identify and include in its Transmission Ranking Costs Report the costs of transmission upgrades needed

to transmit the resource's power from the subject utility's system to the identified point of interconnection with another entity's transmission system.

5. Each utility shall specify in its Transmission Ranking Costs Report the expected location of each new substation. To the extent consistent with existing conceptual studies, the utilities shall identify substation locations based on knowledge regarding both currently proposed and potential future renewable projects.

6. Each subject utility shall file its Transmission Ranking Costs Report in I.00-11-001, with service on all parties, no later than 14 days after Commission adoption of the Interim Methodology. Parties may file comments, with service on all parties, on the Transmission Ranking Costs Reports, no later than 14 days after the reports are filed. Parties may file reply comments, with service on all parties, 7 days thereafter.

7. Utility cost estimates in the Transmission Ranking Costs Reports shall be for the sole purpose of ranking resource bids in the RPS selection process. The Transmission Ranking Costs Reports do not constitute either System Impact Studies or Facilities Studies under the ISO electric tariff on file with the Federal Energy Regulatory Commission.

D. Information to be Included in Bid Submittals for Transmission Cost Ranking Purposes

1. A renewable developer responding to a procurement solicitation shall include at least the following information in its bid:

a. The expected electric generation output of the facility, or additional output of an expanded facility,

b. Number and size of individual generators,

c. The expected first point of interconnection with the subject utility's transmission grid,

d. The date of expected operation,

e. Type of technology,

f. Whether the facility is interconnected to the existing transmission grid, and

g. The status of any interconnection application submitted to the ISO.

2. A renewable bidder that has applied for interconnection pursuant to the ISO tariff and has obtained a completed System Impact Study and / or a completed Facilities Study shall submit those studies as part of its bid.

3. If the first point of interconnection to the transmission grid is or will be at a transmission facility owned by an entity other than the subject utility issuing the procurement solicitation, the bidder shall include with its bid an estimate of transmission upgrade costs needed to deliver the power to the point of interconnection with the purchasing utility's transmission network.

a. For transmission of power on the network of another subject utility filing a Transmission Ranking Costs Report, the developer shall obtain the relevant transmission cost estimates from that company's Transmission Ranking Costs Report.

b. If power will be transmitted across another entity's network, the bidder shall obtain and submit a transmission cost estimate prepared by that other entity. For transmission systems not controlled by the ISO, expected wheeling charges are an acceptable estimate of network upgrade costs.

c. The network transmission costs for delivery of power to the purchasing subject utility's network shall be listed separately in the bid.

E. Consideration of Network Transmission Costs in Ranking Bids

1. The second ranking of RPS bids to determine the combination of RPS projects that best meets least-cost, best-fit criteria shall entail an iterative process. Each subject utility shall undertake the least-cost ranking of bids, subject to best-fit considerations, to minimize total costs of power from RPS projects, including the cost of needed transmission upgrades.

2. Before undertaking the second ranking of RPS bids, each subject utility shall adjust its transmission cost estimates for each level of transmission specified in its Transmission Ranking Costs Report, if needed, to take into account any generation projects that have been added to or deleted from the ISO interconnection queue, any System Impact or Facilities Studies submitted with bids, or any other change to the transmission system not anticipated at the time the Transmission Ranking Costs Report was prepared.

3. If a renewable bidder has established a position in the ISO interconnection queue and has submitted a System Impact Study and / or a Facilities Study as part of its bid, the subject utility shall use the cost estimates for network upgrades contained therein in ranking the bids, subject to the following:

a. If the bid for a project in the ISO interconnection queue anticipates full deliverability of the project's output but the System Impact Study and Facilities Study do not reflect needed deliverability transmission upgrades, the subject utility shall adjustments study results to reflect full deliverability costs. These adjustments shall be transparent and justifiable to the Commission when it reviews proposed RPS contracts.

b. If the System Impact Study and Facilities Study show no network upgrade costs for such renewable bidder and if no adjustments are made pursuant to subsection (a), the soliciting utility shall assume in ranking the bids

that interconnection of such renewable bidder shall not result in any network upgrade costs.

c. To reduce the risk of renewable bidders applying to the ISO for interconnection for the sole purpose of reducing the potential network upgrade costs attributable to them in the ranking process and then withdrawing their application if they do not prevail in the bidding process, a renewable bidder that submitted an interconnection application after release of the Transmission Ranking Costs Report shall not be entitled to the assumption in the preceding subsection.

4. The process of assigning network upgrade costs to specific renewable bidders shall be based on assigning the lowest cost transmission available in each cluster according to the following priority:

a. Renewable bidders that have completed an interconnection application and System Impact and Facilities Studies before the due date for bids in the RPS solicitation. Such bidders shall be given the network upgrade costs attributable to their position in the ISO interconnection queue subject to limitations and adjustments pursuant to Section E.3 above. In the ranking process, pro rata costs of excess capacity created by network upgrades attributable to such bidders may be assigned to other projects if it is the lowest cost capacity available to such projects.

b. Other renewable bidders based on their ranking without consideration of the subject utility's network upgrade transmission costs. For an out-of-area bidder, transmission costs to the point of interconnection with the subject utility's network shall be included in determining the priority of that bidder.

5. The appropriate form of the transmission cost estimate used in assessing a bid, i.e., total cost, per-megawatt (MW) cost, or per-kilowatt-hour cost, may depend on the form of the bid. Each utility shall structure and apply transmission cost estimates in a manner that is consistent and transparent to the Commission when it reviews proposed RPS contracts.

6. In their bids, renewable bidders may describe expected network benefits, the extent to which the project would be able to produce Volt Amperes Reactive (VARs), and other transmission-related factors, and may propose less-than-full deliverability of product output. Each utility shall consider such factors in a manner that is consistent and transparent to the Commission when it reviews proposed RPS contracts.

7. As a simple illustration of the iterative process for the second ranking of RPS bids, consider a cluster where the subject utility has determined that no network upgrade appears necessary for the first 50 MW of new renewable generation added to the grid at that location. Above 50 MW, the next level of network upgrade would provide 50 MW of capacity and would have capital costs of $100 million. Within this cluster are three bidders, each meeting best-fit criteria, listed by increasing cost without consideration of the subject utility's transmission network upgrade costs:

(1) 30 MW bid,

(2) 25 MW bid, and

(3) 20 MW bid in the ISO interconnection queue and with System Impact and Facilities Studies completed before the Transmission Ranking Costs Report was filed (with no adjustments needed pursuant to Section E.3), indicating no network upgrade costs.

Under this scenario, bidder (3) by virtue of its ISO priority and bidder (1) because of its cost being lower than bidder (2) each would receive a transmission ranking cost of $0. Bidder (2) would receive a transmission ranking cost of $4,000,000 / MW, based on the fact that it is estimated to cost $100 million in network upgrades to accommodate its 25 MW of added generation.

Based upon the least-cost principle, the utility would then iteratively look at the best combination of bids in all clusters, taking into account the transmission ranking costs, to meet the desired amount of renewable procurement. The final result would be the selection of the set of renewable resources that best meets the approved procurement needs at the least cost.

8. As another illustration, assume there are only two clusters, Clusters A and B, with three bidders meeting best-fit criteria in each cluster. The subject utility has determined that there is 50 MW of available transmission capacity for Cluster A and none for Cluster B. The most cost-effective network upgrade to accommodate added generation from Cluster A costs $90 million and will add 100 MW of capacity. The most cost-effective network upgrade to accommodate added generation from Cluster B costs $10 million and adds 25 MW in capacity; the next 80 MW in capacity costs $150 million.

Based on increasing cost (without transmission ranking costs), the bids are ranked as follows:

Bidder A1 — 50 MW bid,
Bidder A2 — 25 MW bid,
Bidder B1 — 25 MW bid,
Bidder B2 — 40 MW bid,
Bidder A3 — 50 MW bid, and
Bidder B3 — 10 MW bid.

Assuming that the price differentials without transmission costs are not significant enough to outweigh the transmission costs, the result would depend

upon the amount of renewable power sought. If only 50 MW is sought, then A1 would be the winning bidder.

If 75 MW is sought, then A1 and B1 likely would be the winning bidders, as B1 has a total transmission upgrade cost of $10 million, unless there is a very significant price differential between B1 and A2.

Suppose, however, that 125 MW is sought by the solicitation. A1 continues to have a zero transmission ranking cost. A2 and A3 together have a total transmission ranking cost of $90 million, since both can be accommodated by the 100 MW upgrade. By contrast, B1, B2, and B3 have a combined transmission ranking cost of $160 million for the two upgrades. Absent energy price differentials that tip the balance, the likely winners would be A1, A2, and A3. B1 would not be chosen even though its per-MW transmission costs ($400,000 / MW) are lower than the per-MW transmission costs of A2 and A3 combined ($1.2 million / MW).

9. The transmission ranking costs developed according to this methodology shall be used only for the least-cost, best-fit ranking evaluation. Winning renewable bidders must file interconnection applications with the ISO to interconnect their facilities to the transmission grid. Following submission of a completed interconnection application to the ISO, System Impact and Facilities Studies would be performed to assess actual transmission upgrade needs.

CERTIFICATE OF SERVICE

I certify that I have by mail, and by electronic mail to the parties to which an electronic mail address has been provided, this day served a true copy of the original attached Administrative Law Judge's Ruling Proposing Interim Methodology For Development and Consideration of Transmission Costs in Renewable Portfolio Standard Procurement on all parties of record in this proceeding or their attorneys of record.

Dated April 2, 2004, at San Francisco, California.

/s/ ELIZABETH LEWIS
Elizabeth Lewis

N O T I C E

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address to insure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

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The Commission's policy is to schedule hearings (meetings, workshops, etc.) in locations that are accessible to people with disabilities. To verify that a particular location is accessible, call: Calendar Clerk (415) 703-1203.

If specialized accommodations for the disabled are needed, e.g., sign language interpreters, those making the arrangements must call the Public Advisor at

(415) 703-2074, TTY 1-866-836-7825 or (415) 703-5282 at least three working days in advance of the event.